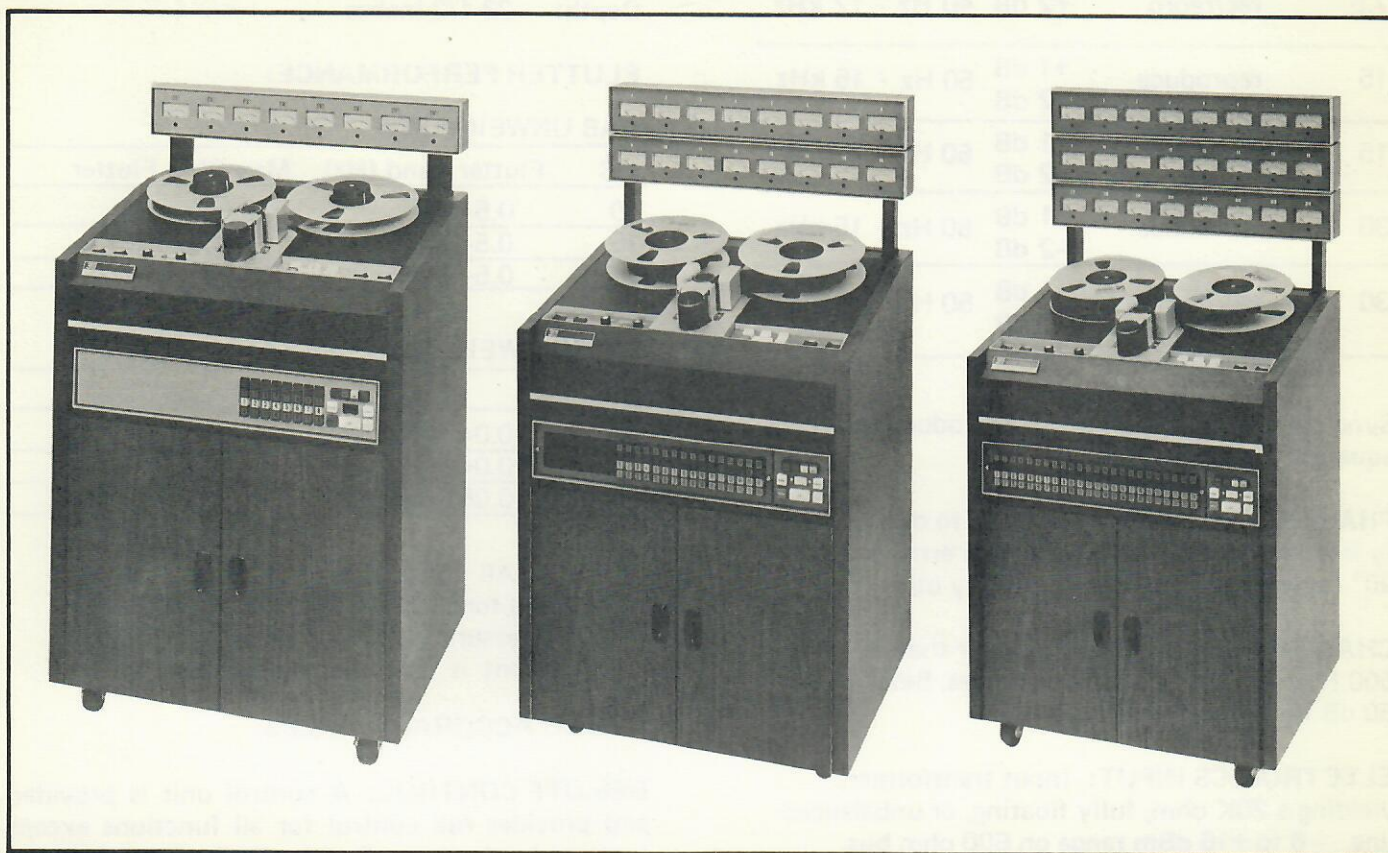


3M BRAND SERIES 79

PERFORMANCE SPECIFICATIONS 8, 16 & 24 TRACK PROFESSIONAL AUDIO REC.



Model M79/8

Model M79/16

Model M79/24

NAB-CCIR/IEC-AES 30 IPS CHARACTERISTIC

The electronics can be setup for all NAB, all CCIR or combination: NAB at low speed, machine will automatically switch to CCIR or 30 ips 17.5 μ s characteristic at high speed. Terminals can be linked on the electronics boards to obtain required function.

SIGNAL-TO-NOISE RATIO: 8, 16 and 24 channel models.

	Standby	Biased Tape
Normal	68 dB	64 dB
Sync	68 dB	64 dB

70 mil track width 20 Hz - 20 kHz bandwidth, with reference to 3% maximum third harmonic distortion level at 700 Hz, using 3M 206 or 207 tape.

EQUALIZATION: Machines are normally equalized for NAB 15 ips and 17.5 μ s 30 ips. Equalizers automatically switch electronically when tape speed is changed. When variable speed is used, LO or HI equalizers may be selected.

CAPSTAN DRIVE: Dc servo control with following switched selection: VAR LO, VAR HI, LO, HI, and EXTERNAL. A local control is provided to vary the speed from 5 - 45 ips. External control is available from a single variable resistor or voltage source. Fixed speeds, 7.5 and 15, or 15 and 30 ips by plug-in selector.

REEL DRIVE: Contains solid state power switching with three rate response modes. Nominal winding velocity 300 ips. Maximum capacity 10-1/2 inch reel, NAB hub. 14" reel capacity optional.

FREQUENCY RESPONSE:

IPS	Mode	Limit
7.5	reproduce	± 2 dB 40 Hz - 12 kHz
7.5	rec/repro	± 2 dB 40 Hz - 12 kHz
15	reproduce	+1 dB -2 dB 50 Hz - 15 kHz
15	rec/repro	+1 dB -2 dB 50 Hz - 15 kHz
30	reproduce	+1 dB -2 dB 50 Hz - 15 kHz
30	rec/repro	+1 dB -2 dB 50 Hz - 15 kHz

Sync response same as normal reproduce (separate equalizers and amplifier).

PHASING: On all channels, input to output polarity is maintained. 1 mil wavelength error is less than 90° between a center track and any other track.

CHANNEL SEPARATION: Better than 55 dB at 500 Hz for 8 and 16 track machines. Better than 50 dB for 24 track machines.

ELECTRONICS INPUT: Input transformers yielding a 20K ohm, fully floating, or unbalanced line. -6 to +16 dBm range on 600 ohm bus.

ELECTRONICS OUTPUT: +4 dBm reference level into 600 ohm load, termination switches provided. +26 dBm maximum output.

BIAS AND ERASE OSCILLATOR: Master oscillator on tape transport supplies 234 kHz low impedance bus feeding individual bias and erase power amplifiers for each channel.

DEGREE OF ERASURE: A 1 kHz signal at 3% distortion level is reduced 75 dB or more by erase head.

POWER INPUT: 110 to 135 or 220 to 250 volts, ac 50 or 60 Hz. All power to machine is electronically regulated within the power supply unit.

8 track unit	400 VA maximum
16 track unit	450 VA maximum
24 track unit	500 VA maximum

MECHANICAL:

Weight: 300 lbs. (24 trk)
Height: 8 trk 46", 16 trk 50 1/2", 24 trk 55"
Width: 27 inches
Depth: 23 1/2 inches

FLUTTER PERFORMANCE:

NAB UNWEIGHTED

IPS	Flutter Band (Hz)	Max RMS Flutter
30	0.5-200	0.06%
15	0.5-200	0.06%
7 1/2	0.5-200	0.08%

IEC/DIN WEIGHTED $\pm$ PEAK %:

IPS	
30	0.04 Maximum
15	0.04 Maximum
7 1/2	0.05 Maximum

NOTE: All measurements of flutter made by recording a tone on machine under test, rewinding and measuring flutter on replay. Flutter measurement is maximum cumulative.

TIMING ACCURACY: $\pm 0.2\%$

REMOTE CONTROL: A control unit is provided and provides full control for all functions excepting speed selection. Positive indication of erase current flow is provided for each channel.

START TIME: Less than 0.5 second to reach PLAY speed.

STOP TIME: Less than 0.5 second from PLAY mode. Less than 4.0 seconds from FAST FWD or RWD.

REWIND TIME: Less than 1.5 minutes for 2,500 feet.

OPTIONAL EXTRAS:

A Selectake Counter Locator unit can be supplied.

14" Reel capability.

PROFESSIONAL AUDIO PRODUCTS

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